

Seroprevalence of brucellosis among farmers and veterinary technical staff in Peninsular Malaysia

ABSTRACT

A study was conducted to determine the seroprevalence and risk factors associated with brucellosis in farmers, veterinary technical staff and other volunteers in Peninsular Malaysia using the One Health concept. A cross sectional study design was employed to sample a population of farmers and Veterinary technical staff on a volunteer basis. The Brucella Coombs test was used to elucidate the seroprevalence of brucellosis in the sampled population and the associated factors and predictors for brucellosis. The seroprevalence of brucellosis among farmers and non-farmers (veterinary technical staff and others) of 446 people studied was 1.35% (95% CI=0.28-2.42). Occupation, age and drinking unpasteurized milk were significant risk factors for brucellosis using multivariate logistic regression at 90% confidence level. The odds of having brucellosis increased by 7.19 times in farmers compared to non-farmers (90% CI=1.16, 44.71), it increased 7.16 times in individuals 40 years and below compared with those above 40 years old (90% CI=1.16, 44.41) and 4.45 times among those who drink unpasteurized milk compared to those who do not (90% CI= 1.03, 19.15). This study highlights the current state of human brucellosis in Malaysia among those groups that are occupationally at risk. A nationwide health education of the occupationally exposed population especially farmers may decrease the incidence of the infection and support the on-going eradication efforts of brucellosis in Malaysia.

Keyword: Brucellosis; Farmers; Malaysia; Seroprevalence; Veterinary staff

